

Each eyelid was cut into sagittal slices and stained with Miller's solution to specifically illustrate the distribution of elastin fibres. Representative sliced specimens were then photographically assessed to quantify the colour density using ImageJ analysis software. All quantitative values were standardised relative to the elastin-rich aorta. Euclidean geometrical modelling principles were applied to calculate the total elastic fibre distribution in the meibomian gland acini.

Results: The morphological analysis of the meibomian glands indicated the average acini diameter to be 152.40 µm. The elastic fibres were found to be concentrated around the meibomian gland acini with a relative elastic concentration of 53.64%. There was no statistical significant difference noted in elastic fibre concentrations with respect to side and gender.

Conclusion: This study introduces a novel approach to calculating the elastic fibre concentrations within structures of the upper eyelid. The presence of a high concentration of elastic fibres around the meibomian gland acini indicates its importance in the secretory process.

0898: DETECTING FATTY INFILTRATION IN CALF MUSCLES: A CORRELATION OF CADAVERIC AND IMAGING STUDIES

C. Hatzantonis*, A. Agur. *University of Toronto, Canada*

Aim: The purpose was to investigate fatty infiltration in calf musculature and to correlate with imaging studies using injury, degeneration, or denervation to calf musculature.

Methods: One hundred formalin fixed cadaveric leg specimens were randomly selected and dissected. Ten specimens were stained with Haematoxylin and Eosin and imaged with MRI. In addition to the specimens, a literature review was conducted on imaging of hereditary myopathies, Achilles tendon abnormalities, and injuries to gastrocnemius and soleus using modalities such as ultrasound, CT, and MRI.

Results: Our cadaveric study demonstrated 24% presence of fatty infiltration of gastrocnemius and soleus muscles, with the process progressing from medial to lateral. This was also found in MR imaging. Haematoxylin and Eosin staining demonstrated an intrafascicular pattern of fatty deposition. The imaging literature used MRI to find oedema and fatty degeneration of the soleus muscle in patients with Achilles tendon abnormalities. Imaging studies of hereditary myopathies found MRI useful in identifying patterns to differentiate muscle dystrophies.

Conclusion: MRI identified patterns of fatty deposition confirmed in our cadaveric study and identified injury and fatty deposition patterns in literature studies of injury and muscle myopathy.

Posters: Breast Surgery

0060: BRCA1/2 MUTATION ASSOCIATED BREAST CANCER, WIDE LOCAL EXCISION AND RADIOTHERAPY OR UNILATERAL MASTECTOMY: A SYSTEMATIC REVIEW

S. Hallam*, S. Govindarajulu, A. Bahl. *North Bristol NHS Trust, UK*

Aim: BRCA1/2 mutation carriers show reduced apoptotic response to ionising radiation leading to recent debate about the safety of wide local excision and radiotherapy.

Aims: Do BRCA1/2 mutation carriers with breast cancer undergoing wide local excision and radiotherapy show increased ipsilateral and contralateral breast tumour recurrence and reduced survival compared with unilateral mastectomy?

Methods: Following detailed literature search the methodology, populations, biases and outcomes of ipsilateral breast tumour recurrence, contralateral breast tumour recurrence and survival were evaluated for 25 articles.

Results: No difference in outcomes were found between wide local excision and mastectomy. BRCA2 mutation status was predictive of contralateral breast cancer only. Radiotherapy reduces the risk of ipsilateral recurrence and confers no increase in contralateral recurrence.

Conclusion: BRCA1/2 mutation status does not preclude treatment with wide local excision and radiotherapy. Given the retrospective studies with

inherent flaws and small patient numbers further large prospective trials are required.

0104: OCCULT PRIMARY BREAST CANCER – WHAT TO DO? CASE SERIES AND REVIEW OF LITERATURE

B. Bandyopadhyay*, S. Joglekar, J. Smith, M. Butt, S. Upadhyay. *Northern Lincolnshire and Goole Hospital, UK*

Aim: Occult breast cancer (OBC) with axillary node metastasis represents less than 1% of all breast cancers (incidence 0.001). Our aim was to analyse management and outcomes of occult breast cancer cases.

Methods: Retrospective case note analysis of occult breast cancers diagnosed at Diana, Princess of Wales hospital, England between 2006–2014. Data collected - presentation, Mammography (MMG), ultrasound (USS), MRI, CT, biopsy, management and follow up.

Results: Total 6 patients presented. Age-range 37–71 years. 5/6 presented with an axillary lump, 1/6 was detected in a post-mastectomy specimen. All cases were occult on MMG, USS and breast MR. 5/6 had grade III and 1/6 had grade II ductal carcinoma. Immunohistochemistry showed 1/6 triple negative; 4/6 ER+, 2/6 HER2+. Staging CT was normal for all patients. 5/6 patients underwent axillary clearance, 1/6 had sampling. 3/6 had axillary radiotherapy. 2/6 had neoadjuvant and 3/6 had adjuvant chemotherapy. 4/6 had hormones. Follow up ranged from 2 months to 7 years. 5/6 patients are in remission. 1/6 developed metastasis.

Conclusion: In the absence of randomised data, this study shows that patients have excellent outcomes when managed similar to node+, ER+ breast cancers with adjuvant chemo-radiotherapy and hormones. In the future PET scanning will play a significant role in the diagnosis of OBC.

0120: POSITIVE PREDICTIVE VALUE OF CLINICAL BREAST EXAMINATION FOR BREAST CANCER IN A SYMPTOMATIC POPULATION WITH COMPARISON FOR CLINICIAN SENIORITY

G. McGroarty*, P. Osadolor, K. Krupa, M. McKirdy, J. McIlhenny. *Royal Alexandra Hospital, UK*

Aim: The accuracy of clinical breast examination (CBE) for breast cancer in a screening population is well described, but less so in a symptomatic population. We aim to evaluate the positive predictive value of CBE at the one stop breast clinic, and compare this for doctors at different levels.

Methods: All new patients who had core biopsy at the one stop breast clinic 1st Jan–31st Aug 2014 (n=138). Doctors graded examination P1–P5 prior to imaging. Core performed for any lesion P3+, or U3/R3+ on imaging (except patients under 25 with fibroadenoma).

Results: Core biopsies performed by: consultants (N=38; 27%); specialty doctors (N=77; 56%); specialty registrars (N=7; 5%); and core trainees (N=16; 12%). Breast cancer or DCIS was found in 129/138 core biopsies (93%). Positive predictive values for CBE grades were: P3 94%; P4 96%; P5 100%; with no difference for clinician seniority.

Non-consultants were more likely to use the P3 grading than consultants (26% vs 18%) though this was not significant (P=0.5).

Conclusion: The high positive predictive value of a CBE grade of P4 or P5 indicates that when doctors diagnosed breast cancer on clinical breast examination they were rarely wrong. This was independent of seniority.

0185: A SYSTEMATIC REVIEW COMPARING THE FUNCTIONAL CHANGES AND COMPLICATIONS OF DIEP AND TRAM FLAPS IN PATIENTS RECEIVING BREAST RECONSTRUCTION

E.D. Mills, K. Dynes, N.N.Y. Boon, Q. Liao, W.H. Chan*. *University of Aberdeen, UK*

Aim: Treatment for breast cancer may involve unilateral or bilateral mastectomy, with subsequent breast reconstruction surgery. Using autologous tissue flaps during reconstructive surgery is increasingly popular. The aim of this systematic review was to determine if the DIEP flap is more effective than the TRAM flap for breast reconstruction in females after a mastectomy in terms of donor site morbidity, recipient site morbidity, and functional outcome.

Methods: Studies were identified using the databases Medline and Embase and applying predefined search criteria. The limits applied were;